

ABSTRAK

Hanna Victoria Jayawanto (01034180029)

**KAJIAN IDENTIFIKASI KOMPONEN AKTIF MINUMAN
FERMENTASI KEFIR SUSU DAN KEFIR AIR**
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(xiii + 36 halaman; 13 tabel; 2 gambar; 1 lampiran)

Kefir susu dan kefir air merupakan minuman fermentasi yang menggunakan bibit kefir sebagai kultur starternya. Kedua minuman fermentasi ini memiliki persamaan, namun juga ada perbedaan seperti kandungan komponen aktif, karakteristik kimia, dan karakteristik mikrobiologis. Pengetahuan mengenai kefir yang masih terbatas menjadikan jenis minuman ini terdengar asing di Indonesia. Tujuan dari kajian pustaka adalah mempelajari kefir susu dan kefir air secara keseluruhan terutama identifikasi komponen aktifnya. Kajian pustaka disusun berdasarkan hasil-hasil penelitian yang dipublikasikan di jurnal yang terakreditasi oleh Scopus untuk jurnal internasional dan terakreditasi Sinta untuk jurnal nasional. Hasil kajian pustaka menunjukkan bahwa lebih dari 50 senyawa atau komponen aktif pada kefir susu dan sekitar 30 senyawa pada kefir air. Hasil identifikasi komponen aktif pada kefir susu adalah asam asetat, etanol, asam laktat, asam butirat, dan asam sitrat. Komponen aktif pada kefir air adalah asam laktat, asam asetat, etanol, dan asam oktanoat. Karakteristik fisikokimia seperti kadar alkohol (min. 0,5%) dan nilai pH (maks. 4,5) dipengaruhi oleh suhu dan waktu fermentasi. Semakin lama fermentasi membuat kadar alkohol mengalami peningkatan dan membuat nilai pH semakin rendah. Karakteristik mikrobiologis seperti total Bakteri Asam Laktat (min. 10^6 CFU/mL) dan total khamir (min. 10^4 CFU/mL) dipengaruhi oleh suhu dan waktu fermentasi. Semakin lama fermentasi membuat total BAL dan total khamir mengalami peningkatan. Pengonsumsi kefir susu dan kefir air dapat bermanfaat bagi kesehatan seperti antidiabetes, mengurangi dan mencegah sel neoplastik usus, antioksidan, mengurangi volume tumor, penyakit jantung, antioksidan, antihiperlipidemia, dan menurunkan indeks aterosklerotik.

Kata Kunci : Kefir susu, kefir air, komponen aktif, kimia, mikrobiologis,
kesehatan

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ABSTRACT

Hanna Victoria Jayawanto (01034180029)

STUDY OF IDENTIFICATION OF ACTIVE COMPONENTS FERMENTED DRINKS MILK KEFIR AND WATER KEFIR

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(xiii + 36 pages; 13 tables; 2 figures; 1 appendix)

Milk kefir and water kefir are fermented drinks that use kefir seeds as a starter culture. These two fermented drinks have similarities, but there are also differences such as the content of active components, physiochemical characteristics, and microbiological characteristics. Knowledge about kefir is still limited to make this type of drink sound foreign in Indonesia. The purpose of the literature review is to study milk kefir and water kefir as a whole, especially the identification of the active components. The literature review is based on research results published in journals accredited by Scopus for international journals and accredited by Sinta for national journals. The results of the literature review show that there are more than 50 compounds or active components in milk kefir and about 30 compounds in water kefir. The results of the identification of the active components in milk kefir are acetic acid, ethanol, lactic acid, butyric acid, and citric acid. The active components in water kefir are lactic acid, acetic acid, ethanol, and octanoic acid. Chemical characteristics such as alcohol content (min. 0.5%) and pH value (max. 4.5) were influenced by temperature and fermentation time. The longer the fermentation, the higher the alcohol content and the lower the pH value. Microbiological characteristics such as total Lactic Acid Bacteria (min. 10^6 CFU/mL) and total yeast (min. 10^4 CFU/mL) were influenced by temperature and fermentation time. The longer the fermentation, the higher the total LAB and total yeast. Consumption of milk kefir and water kefir can have health benefits such as antidiabetic, reducing and preventing intestinal neoplastic cells, antioxidant, reducing tumor volume and heart disease, antioxidant, antihyperlipidemia, and lowering atherogenic index.

Keywords : Milk kefir, water kefir, active components, chemical, microbiological, health

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